

REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Objections to Drawings

This objection has been addressed by adding labels to the blocks in Figs. 1 and 2.

2. Objections to Claims

These objections have been addressed by amending claim 6 in the manner suggested by the Examiner in item 3 on page 2 of the Official Action, and by increasing the letter spacing in claim 7.

3. Amendments to Claim 1

Claim 1 has been amended to emphasize the alternative nature of (i) the SLIC packet connection and (ii) the PSTN connection used in case of a power failure, by separating the respective recitations of packet communications and switching to the PSTN upon power failure.

4. Rejection of Claims 1-7 Under 35 USC §103(a) in view of U.S. Patent No. 6,424,647 (Ng)

This rejection is respectfully traversed on the grounds that the claimed invention differs from the Internet phone system disclosed in the Ng patent for at least the following reasons:

- The claimed invention is arranged to **either**:
 - (i) connect a telephone call directly via a subscriber line transfer switch (SLIC) to the **Internet or**
 - (ii) to connect the call to a public switched telephone network (**PSTN**) in case of
 - (a) power failure (claims 1 and 4),
 - (b) receipt of a call over the PSTN (claims 1 and 4), or
 - (c) dialing of a PSTN telephone number (claim 6).

In contrast, Ng's teaches a protocol for connecting a telephone call by dialing an Internet Service Provider (ISP) *through the PSTN*, via a modem algorithm. Whereas Ng requires dialing up an **ISP via the PSTN**, the claimed invention does not require connection to an ISP or PSTN, but rather normally generates its own packets, the PSTN only being used in case an Internet connection is not possible due to the above-mentioned power failure, non-Internet capable remote phone, or receipt of a call over the PSTN.

- With respect to the direct Internet connection, the claimed invention uses an independent network interface to convert voice signals to Internet-ready packets for communicating directly with a remote telephone through the Internet, the network interface including a **control circuit** that connects with a telephone through a **subscriber line interface circuit** (SLIC) and transfer switch, the SLIC converting the voice signal output by the telephone to a digital signal, and the control circuit generating corresponding **IP packets** directly transferable over the Internet. In contrast, the Internet phone disclosed by Ng does not have any independent network interface for converting voice signals from the telephone to Internet-ready packets, but rather must **dial-up an Internet Service Provider (ISP)** by using a modem algorithm **through a public switched telephone network (PSTN)** before proceeding with the Internet phone communication.
- With respect to the PSTN alternative, the claimed invention detects "employment status" of the terminal apparatus, and supplies a transfer signal to the transfer switch to in order to **automatically transfer** unused phones to communicate with the remote phone through the PSTN. Ng does not even remotely suggest such transfer, but to the contrary seeks to achieve a low cost local area PSTN network by implementing **specially designed dialing numbers** and control to replace international and long distance calling procedures.

The claimed invention enables a control circuit of a VoIP device to connect with at least one line transfer switch through a phone detection circuit, the phone detection circuit being used to detect the status of at least one phone connected with the VoIP device, and the circuit transfer switching detecting an in-coming call ringing signal transmitted from the PSTN through a ringing detection circuit established on a loop. When a ringing signal is detected, indicating receipt of

an ordinary telephone call over the PSTN, the message will be transmitted instantly to the control circuit such that the control circuit can, according to the detected status, trigger a signal to transfer the circuit transfer switches, which causes the unused phone to be automatically connected to receive the ringing signal transmitted from the PSTN. On the other hand, if the power supply to the VoIP device is off, the control circuit is used to trigger a signal that causes the phones to be automatically transferred to the PSTN irrespective of how the call originated, the control circuit regenerating the trigger signal to automatically transfer the call back to the Internet with the power supply for the VoIP returns to normal, thereby providing unimpeded communication status irrespective of the power status for the VoIP device by switching between the Internet and PSTN. **The Ng patent does not even remotely disclose or suggest either the claimed ring detection for incoming PSTN calls or switching between the Internet and PSTN to provide unimpeded communication status in case of a temporary power failure interpreting the VoIP connection.**

Instead, the Ng patent discloses a method or Internet phone for automatically dialing up a phone call connection across the Internet connection. Initially, the caller manually dials a recipient's telephone number, and once the telephone call connection is made, the calling party's Internet phone automatically starts a dialing routine which notifies the recipient party's Internet phone that a phone call connection over the Internet is desired. The dialing may involve a differential ringing sequence, a differential timing sequence or a single ringing interval. Upon the dialing routine being detected by the recipient party's Internet phone, the parties end the telephone connection and proceed to make separate connections to the Internet via a Lightweight Directory Access Protocol (LDAP). The calling party's and the recipient party's Internet phones submit information related to their respective Internet protocol address and telephone numbers, and the calling party additionally submits information related to the recipient Internet phone's telephone number. Then the Internet connection for the intended phone call is automatically completed. Alternatively, the differential dialing routine can be performed by a knocking server on the Internet, and a director server on the Internet can match callers and recipients by their respective telephone numbers.

Serial Number 09/888,491

The Ng patent thus involves a different environment than the claimed invention ((i) establishing a dial-up connection through the PSTN vs. (ii) voice-to-packet generation and corresponding switching between an SLIC and the PSTN), and different objectives and purposes ((i) by-passing long distance and IDD switching protocols vs. (ii) switching between SLIC and PSTN to enable unimpeded communications in case of power failure or a remote telephone lacking direct VoIP capabilities). As a result, it is respectfully submitted that the Ng patent could not have suggested the claimed invention, and withdrawal of the rejection of claims 1-7 under 35 USC §103(a) is respectfully requested.

Having thus overcome each of the objections and rejections made in the Official Action, withdrawal of the objections and rejections, and expedited passage of the application to issue, is requested.

Respectfully submitted,

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Serial Number 09/888,491

AMENDMENTS TO DRAWINGS

Please amend Figs. 1 and 2 to label the functional blocks, as indicated in the attached REPLACEMENT SHEET containing amended Figs. 1 and 2.